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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,405	01/09/2002	Kia Silverbrook	WSM010US	2054

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SILVERBROOK RESEARCH PTY LTD
393 DARLING STREET
BALMAIN, 2041
AUSTRALIA

EXAMINER

SONG, SARAH U

ART UNIT	PAPER NUMBER
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2874

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/040,405

Applicant(s)

SILVERBROOK, KIA

Examiner

Sarah Song

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-19 is/are pending in the application.
- 4a) Of the above claim(s) 13-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 10, 2004 has been entered. Claim 1 has been amended. Claim 11 has been canceled. Claims 1-10 and 12-19 are pending, claims 13-19 being withdrawn from consideration.

Claim Objections

2. Claim 4 is objected to because of the following informalities: Claim 4 depends upon itself. For purposes of examination, Claim 4 will be examined as depending from claim 2. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Han et al. (U.S. Patent 6,374,004 previously relied upon) in view of Jian (U.S. Patent 6,328,482 newly cited).**

5. Regarding claims 1, 3, 5 and 6, Han et al. discloses an optical fiber terminator package including:

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- a. a semiconductor chip 16 having a top surface and a bottom surface and including at least one first and second optical device 14 which emits or receives electromagnetic radiation at one or more wavelengths from the top surface;
- b. a first hollow cap (15, 20 and 22) having a central portion (recess shown in Figure 2a) and four perimeter walls extending from a perimeter edge of the central portion with a free edge of each perimeter wall bonded to the top surface to provide a first cavity which, in plan view, overlays at least part or all of at least one light emitting device, said central portion including:

- at least one region (the central opening shown in Figure 2a or optical element 20) which is at least substantially transparent or translucent to electromagnetic radiation at said one or more wavelengths, the at least one region including at least one shaped recess (shown in Figure 2a).

6. It is additionally noted that the method limitation of “wherein the first cap has been bonded to the semiconductor chip at the wafer stage prior to separation of the wafer into individual packages” is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

7. Han et al. discloses optics (e.g. 44) on a bottom surface the optics block 20, but does not expressly disclose the shaped recess (i.e. cavity) to form a refractive lens.

8. Jian discloses an optics block comprising a refractive lens (column 7, lines 57-59; Figure 3G).

9. Han et al. and Jian are analogous art as pertaining to optoelectronic device couplers.

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10. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the subassembly of Han et al. with refractive lens on the optics block.

11. One of ordinary skill in the art would have been motivated to provide refractive lenses on the optics block since it was known that refractive lenses are functional over a broad range of optical wavelengths, thereby improving versatility of the subassembly.

12. Regarding claims 2 and 4, the cap further includes first and second attachment means 24, 26 (one on each side of the central portion) for attaching an electromagnetic radiation transmitting cable or fiber 10 to the cap, whereby at least some electromagnetic radiation transmitted between the at least one first optical device and the cable or fiber passes through said at least one region.

13. Regarding claims 7 and 10, Han et al. also discloses a second cap 18 bonded to the bottom surface of the chip 16, said second cap, in plan view, overlaying at least part or all of at least one first optical device.

14. Regarding claims 8 and 9, see claim 10 of Han et al.

15. Regarding claim 12, see Figure 4a, which shows first and second regions that refract electromagnetic radiation passing therethrough.

16. Note also claims 1-7, 9 and 10 of Han et al.

17. In conclusion, the above-identified differences between the subject matter sought to be patented and the U.S. Patent to Han et al. are such that the subject matter, **considered as a whole**, would have been obvious at the time the invention was made to a person having ordinary skill in the art.

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Response to Arguments

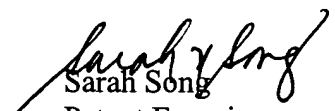
18. Applicant's arguments with respect to claims 1-10 and 12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah Song whose telephone number is 571-272-2359. The examiner can normally be reached on M-Th 7:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on 571-272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sarah Song
Patent Examiner
Group Art Unit 2874